Application Server 3.1.2

Release Notes and Installation Instructions

Please Read

Important

Please read this entire guide. If this guide provides installation or operation instructions, give particular attention to all safety statements included in this guide.

Notices

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Contents

About This Guide

Introduction

These release notes and installation instructions provide information and procedures for upgrading a Cisco Digital Broadband Delivery System (DBDS) to Application Server 3.1.2. These release notes contain the following information:

- Chapter 1 provides a description of new features introduced with this application server software, along with a list of issues that were addressed during its development.
- Chapter 2 provides step-by-step instructions for installing the Application Server software.
- Chapter 3 provides general information for contacting Cisco.
- Appendix A provides a procedure for backing out of this upgrade should it not succeed for some unforeseen reason.

Who Should Read This Publication?

Cisco engineers or system operators who are responsible for installing the Application Server software onto a Digital Network Control System (DNCS) should read this publication.

Which Sites Are Affected?

These release notes and installation instructions affect sites that support the Cisco Resident Application (SARA).

How Long Does It Take to Install?

Completely installing the Application Server 3.1.2 software may take approximately 2 hours. This time estimate includes taking down the system and bringing it back up.

Continued on next page

Document Version

This is the third release of this document. In addition to minor text and graphic changes, the following table provides the technical changes to this document.

Description	See Topic
Added a procedure for verifying key parameters in the onconfig file	**Verify Key Parameters in the onconfig File** in Chapter 2
Replaced the use of swmtool with install_pkg	• **Install the Application Server Software** in Chapter 2 • **Roll Back Application Server 3.1.2** in Appendix A

Chapter 1
Why Choose Application Server 3.1.2?

Overview

Introduction

Application Server 3.1.2 includes new features and enhancements implemented at the request of our customers. For example, you can now configure your system to allow subscribers to power the Digital Home Communications Terminal (DHCT) on or off using the numeric keys on the remote control. Review this chapter to learn more about this and other exciting changes. In addition, this chapter provides a matrix of client release software that was verified with individual system releases prior to this Application Server software release.

In This Chapter

This chapter contains the following topics.

System Release Compatibility and Prerequisites

Overview

This section provides a list of the software that is compatible with Application Server 3.1.2 and the prerequisites for the DBDS before you install Application Server 3.1.2.

Installation CD

To install Application Server 3.1.2, you must have the Application Server 3.1.2 CD.

System Release Compatibility

The following software applications and patches were tested and released with Application Server 3.1.2:

- DNCS application patch 3.0.1.16p1
- DBDS Maintenance CD 1.1.7
- DNCS GUI 3.0.1.16p1
- DNCS WebUI 3.0.1.16p1
- SAItools 3.0.1.9 or later

Note: Application Server 3.1.2 can be installed on a DBDS running with DNCS application versions 3.0.1.9Ap2 and 3.0.1.16.

For more information about Application Server 3.1.2, please contact Cisco Services.

Continued on next page

Prerequisites

The DBDS must be operating with the following system software before you can install Application Server 3.1.2:

- SR 2.2 or SR 3.2 system software
- SR 2.2 or SR 3.2 Service Pack 1 system software
- SR 2.4 or SR 3.4 system software
- SR 3.3 system software
- DBDS Utilities Version 3.1 or later

If You Need to Roll Back

In the unlikely event that you experience a problem installing this Application Server, the rollback process involves reinstalling the SAIapsrv and SAItools packages for the Application Server. Follow the procedures in this section to identify your current SAIapsrv and SAItools packages. Then locate the SAIapsrv and SAItools CD(s) and keep them on hand so that they are readily available if you should need to roll back.

Note: Refer to Appendix A, **Application Server 3.1.2 Rollback Procedure**, for instructions on reinstalling these software packages.

Complete these steps to identify your current SAIapsrv and SAItools packages.

1. In an xterm window on the Application Server, type **pkginfo –l SAIapsrv** and press **Enter**.

   Result: The current Application Server version displays.

2. Write down the current Application Server version here: _____

3. In the same xterm window on the Application Server type **pkginfo –l SAItools** and press **Enter**.

   Result: The current SAItools version displays.

4. Write down the current SAItools version here: _____

5. Locate the CD(s) and keep them on hand so that they are readily available if you should need to roll back

What's New for Application Server 3.1.2?

Introduction

Application Server 3.1.2 provides several improvements for your system. This section provides information on the enhancements and changes that are included with Application Server 3.1.2. If you want to see if a specific change request (CR) was implemented in this release, a quick reference is provided. If you would like to review CRs in more detail, see **Want to Know More**, next in this chapter.

Important: Beginning with SR 2.2 and SR 3.2 Service Pack 1, the Application Server release is no longer tied to system releases. Refer to the release notes for your Application Server release to find a list of CRs and other issues related to that release.

Note: If you need additional information about a particular CR, please contact Cisco Services.

Quick Reference to CRs

The following list provides a short description of each CR implemented in Application Server 3.1.2.

CR Number	Short Description
32695	DHCTs no longer need to send a reply to the DNCS when they receive addressable configurations.
33913	A new General Settings option allows users to power on the DHCT using the numeric keys on the remote control.
36053	The IPG collector now deletes any conflicting records when the information in the Interactive Program Guide (IPG) is updated.

Want To Know More?

Introduction

This section provides more detail on each change for Application Server 3.1.2.

Addressable Configuration No Longer Requires Reply from DHCT

DHCTs are no longer required to reply to addressable configuration changes. **CR 32695** enables the configuration change to take effect without the reply.

Numeric Keys Power on DHCT

In earlier releases, users could not power on a DHCT using the numeric keys on the remote control. **CR 33913** enables this feature.

Important: Activating this feature requires SARA 1.53.

IPG Collector Conflicts Removed

In Application Server 3.1.1, the IPG collector did not delete conflicting records whenever the IPG information was updated. **CR 36053** corrects this issue.

Application Server No Longer Associated With System Releases

Beginning with SR 2.2 and SR 3.2 Service Pack 1, the Application Server release is no longer tied to system releases. Refer to the release notes for your Application Server release to find a list of CRs and other issues related to that release.

Compatible Application Platform Releases

Software Compatibility Matrix

The following table provides a compatibility matrix of application platform software verified with the individual system releases. A check mark in a column indicates compatibility with the specified release.

SARA	PowerTV OS	SR 2.2/3.2
1.15.23	3.1	√
1.15.23	3.1.2	√
1.15.23	3.1.3	√
1.15.23	3.1.4	√
1.17	3.3	√
1.21	3.1	
1.21	3.1.3	
1.40	3.2	√
DVR 1.0	HSE 1.0	√
1.41	3.3	√
1.41	3.3.2	√
1.50	3.4	√
1.52	HDE 1.0	√

Notes:

- This table only provides compatibility of released application platform releases. If you have a question about current testing status of application releases, contact your Cisco Services.
- SARA 1.15 and PowerTV® OS 3.1 or higher is required for Service Group Auto Discovery and session-based encryption.
- If you need to upgrade your client release, we recommend that you upgrade after you install the service pack.
- Support for session-based encryption on the Explorer® 8000™ platform will be provided in a future release of home server software.

Chapter 2
Application Server 3.1.2 Installation Instructions

Overview

Introduction

This chapter provides procedures for installing the Application Server 3.1.2 software.

Required Skills and Expertise

System operators or engineers who upgrade the Application Server to Application Server 3.1.2 need advanced knowledge of the UNIX vi editor. To install Application Server 3.1.2, you may need to use the UNIX vi editor to modify the parameters of some files. The UNIX vi editor is not intuitive. The instructions provided in this document are no substitute for an advanced working knowledge of vi.

When is the Best Time to Upgrade to Application Server 3.1.2?

The optimum time to upgrade your system is when you are least likely to intrude on subscribers' purchasing opportunities and least likely to impact your revenue-generating opportunities.

Traditionally, upgrades have been done during the night between 11:00 P.M. and 6:00 A.M. However, systems can be upgraded anytime during the day or night. You know your system and the habits of your subscribers better than anyone else. If your system typically experiences a significant increase in revenue-generating activity in the evening, such as from *anything*-On-Demand (xOD), video-on-demand (VOD), or pay-per-view (PPV) purchases, consider upgrading your system during the day. For example, you may determine that there is little interactivity or few revenue-generating opportunities occurring in the early morning. If so, morning may be the best time to upgrade your system. Your subscriber base can continue to watch digital broadcasts (as long as the DHCT is not rebooted) and analog TV programs, without interruption, while the system is being upgraded.

In This Chapter

This chapter contains the following topics.

Continued on next page

Run the Doctor Report

Introduction

Before you upgrade the Application Server to Application Server 3.1.2, use the procedures in the *DNCS Utilities Version 5.1 Installation Instructions and DNCS Utilities User's Guide* to run the Doctor Report. The Doctor Report provides key system configuration data that might be useful before you begin the upgrade process.

How Long Does It Take?

On a typical system, the Doctor Report takes about 10 minutes to run.

Analyze the Doctor Report

Refer to the *DNCS Utilities Version 5.1 Installation Instructions and DNCS Utilities User's Guide* for help in interpreting the data generated by the Doctor Report. If you need help resolving any issues reported by the Doctor Report, call Cisco Services.

Important: Do not proceed with the other procedures in this chapter until you have run and analyzed the Doctor Report, and you have corrected any problems it may indicate.

Verify Key Parameters in the onconfig File

Introduction

After you run the Doctor Report, verify that the TAPEDEV and LTAPEDEV parameters are set correctly in the onconfig file. If these parameters are set incorrectly, you may encounter difficulties during the installation.

How Long Does It Take?

On a typical system, it takes about 1 minute to determine the current settings of the TAPEDEV and LTAPEDEV parameters and about 5 minutes to change the settings.

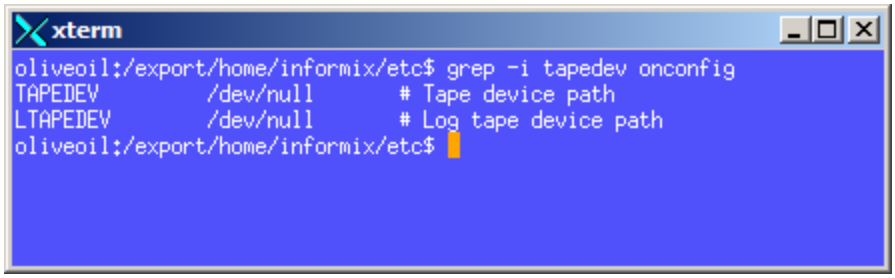
Verify TAPEDEV and LTAPEDEV Parameters

Complete these steps to verify that the TAPEDEV and LTAPEDEV parameters are set correctly.

1. On the DNCS, open an xterm window.
2. Type **cd /export/home/informix/etc** and press **Enter**.

   Result: The system makes /export/home/Informix/etc the working directory.
3. Type **grep –i tapedev onconfig** and press **Enter**.

   Result: The system searches the onconfig file and displays lines that contain "tapedev," similar to the example shown here.



4. Did the system display **/dev/null** as the tape device path and log tape device path?
   - If **yes**, the TAPEDEV and LTAPEDEV parameters are set correctly. Go to step 9.
   - If **no**, go to step 5.

Continued on next page

5. Type **cp onconfig onconfig.DATE** and press **Enter**.

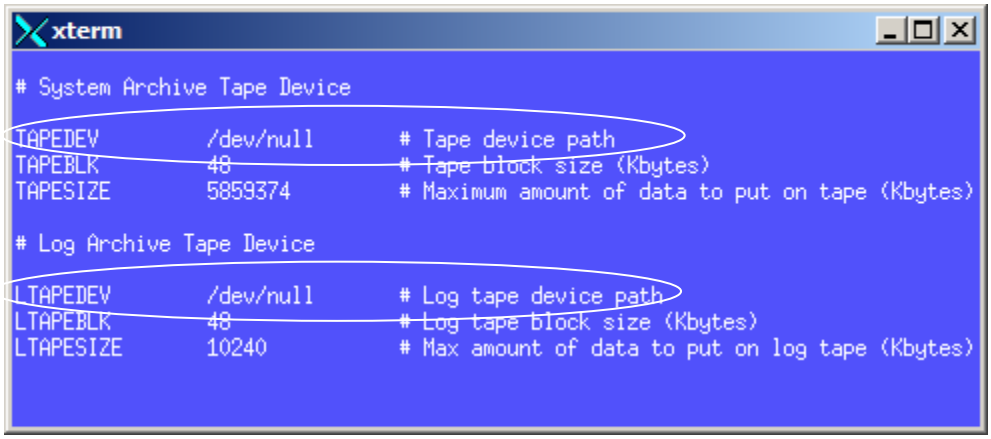
   Note: In this command, DATE represents today's date in DDMMYY format. For example, if today is March 15, 2005, you would type **cp onconfig onconfig.031505**.

   Result: The system makes a copy of the onconfig file and names the copy onconfig.DATE.

6. Type **vi onconfig** and press **Enter**.

   Result: The onconfig file opens for editing using the UNIX vi text editor.

7. Edit the TAPE DEV and LTAPEDEV parameters so that they use **/dev/null** for both the tape device path and log tape device path, as shown in the following example.



8. Save the file and close the vi text editor.

   Result: You have ensured that the settings for the TAPEDEV and LTAPEDEV parameters are correct.

   Note: Changes to the onconfig file are effective as soon as you save the file. It is not necessary to restart system components for these changes to take effect.

9. Type **exit** to close the xterm window.

Verify DBDS Stability

Introduction

After you verify that the TAPEDEV and LTAPEDEV parameters are set correctly in the onconfig file, verify that the DBDS is stable. Your DBDS must be stable *before* you can upgrade to Application Server 3.1.2. After you correct any problems shown on the Doctor Report and check installed software component versions, complete the procedure in this section to verify that your DBDS is stable. Complete this procedure on one or more test DHCTs.

Note: This procedure applies to systems running the Cisco Resident Application (SARA) only.

Prerequisites

The test DHCTs you use for this procedure must meet the following conditions:

- Must be authorized for all third-party applications
- Must not be authorized to view a PPV event without specifically buying the event
- Must have a working return path and be capable of booting into two-way mode

Verifying DBDS Stability

Complete these steps to verify that your DBDS is stable.

Important: If this procedure fails, do *not* continue with the upgrade. Instead, contact Cisco Services.

❑ 1. Perform a slow-and-fast boot on a test DHCT as follows:

a) Boot a DHCT.

Note: Do *not* press the POWER button.

b) Access the Power On Self Test and Boot Status Diagnostic Screen on the DHCT and verify that all parameters, except UNcfg, display **Ready**.

Note: UNcfg displays **Broadcast**.

c) Wait 5 minutes.

d) Press the POWER button on the DHCT.

Result: The DHCT powers on.

e) Access the Power On Self Test and Boot Status Diagnostic Screen on the DHCT.

f) Do all of the parameters, including UNcfg, display **Ready**?

– If **yes**, go to step 2.

– If **no**, contact Cisco Services.

❑ 2. Ping the DHCT.

Continued on next page

- ❑ 3. Did the DHCT receive the ping?
  - If **yes**, go to step 4.
  - If **no**, contact C Services.
- ❑ 4. Stage at least one new DHCT to the system operator's specifications.
- ❑ 5. Did the newly staged DHCT successfully load the current client release software?
  - If **yes**, go to step 6.
  - If **no**, contact Cisco Services.
- ❑ 6. Did the DHCT receive 33 or 34 EMMs and successfully receive its Entitlement Agent?
  - If **yes**, go to step 7.
  - If **no**, contact Cisco Services.
- ❑ 7. Does the IPG display 7 days of valid and accurate data?
  - If **yes**, go to step 8.
  - If **no**, contact Cisco Services.
- ❑ 8. Do the PPV barkers appear on the PPV channels correctly?
  - If **yes**, go to step 9.
  - If **no**, contact Cisco Services.
- ❑ 9. Can test DHCTs buy a VOD program?
  - If **yes**, go to step 10.
  - If **no**, contact Cisco Services.
- ❑ 10. Can test DHCTs support a secondary language?
  - If **yes**, go to step 11.
  - If **no**, contact Cisco Services.

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- ❑ 11. Do third-party applications load properly?
  - If **yes**, go to step 12.
  - If **no**, contact Cisco Services.
- ❑ 12. Did every test in this section pass?
  - If **yes**, go to **Check the Emergency Alert System Configuration**, next in this chapter.
  - If **no**, contact Cisco Services.

Check the Emergency Alert System Configuration

Checking the Emergency Alert System Configuration

Before you install Application Server 3.1.2, verify that your Emergency Alert System (EAS) equipment is properly configured in the DNCS. Refer to the procedures in Chapters 1, 3, and 8 of the *Configuring and Troubleshooting the Digital Emergency Alert System* Application Guide.

After you verify that your EAS configuration is correct, go to **Suspend the Billing System and Other Third-Party Applications**, next in this chapter.

Note: You will re-check the EAS configuration *after* you install Application Server 3.1.2.

Suspend the Billing System and Other Third-Party Applications

Introduction

After you have checked the EAS and before you install Application Server 3.1.2, follow the instructions in this section to stop the billing system and other third-party applications.

Suspending Billing and Other Third-Party Applications

Before installing Application Server 3.1.2, you need to suspend the billing system and any other third-party applications that communicate with the DNCS. Contact the billing vendor in order to suspend the billing interface. In addition, contact the providers of any third-party applications that your system supports. Follow their guidance in determining whether these third-party interfaces should be stopped as well.

Stop System Components

Introduction

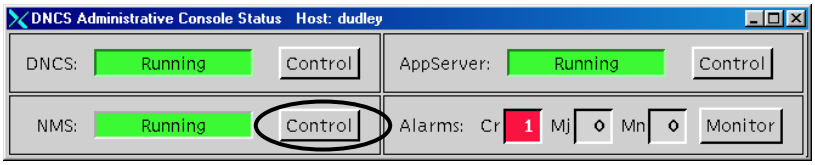
After you have verified that your EAS configuration is correct and suspended billing and third-party applications, you must complete the procedures in this section to stop the following system components in the order listed:

1. Spectrum Network Management Service (NMS)
2. Application Server processes and cron jobs
3. DNCS processes and cron jobs

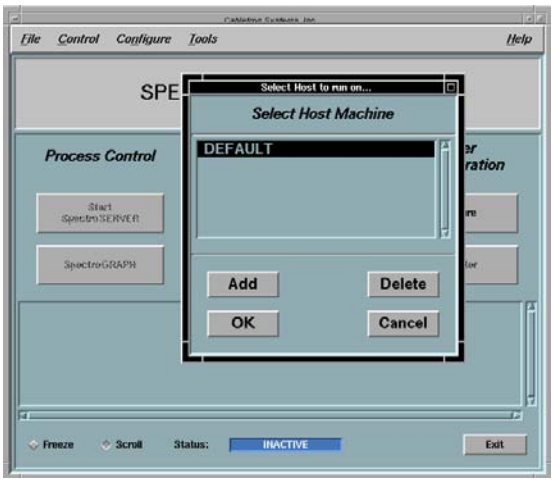
Stopping Spectrum NMS

Complete these steps to stop the Spectrum NMS.

❑ 1. On the DNCS Administrative Console Status window, click **Control** in the NMS area.



Result: The Select Host Machine window opens with the Spectrum Control Panel in the background.



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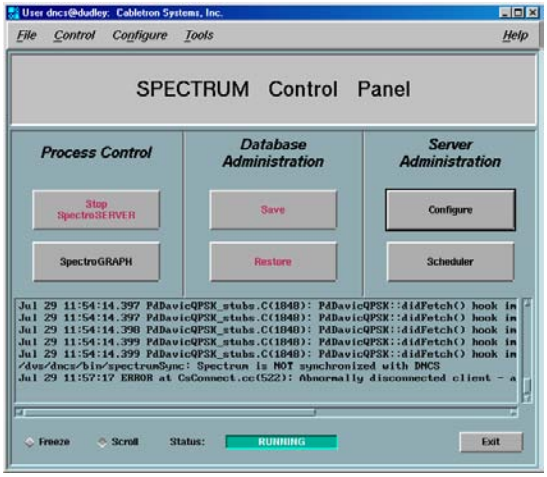
❑ 2. Click **OK** to accept the default.

Result: The Select Host Machine window closes and the Spectrum Control Panel window moves to the forefront and displays a Status of **Running**.



❑ 3. Click **Stop SpectroSERVER**.

Result: A confirmation window opens.

❑ 4. Click **OK**.

Result: The confirmation window closes and the system begins shutting down the Spectrum NMS. When finished, the Status on the Spectrum Control Panel window changes to **Inactive**.

❑ 5. Click **Exit**.

Result: A confirmation window opens.

❑ 6. Click **OK**.

Result: The confirmation and Spectrum Control Panel windows close.

❑ 7. Go to **Stopping the Application Server**, next in this section.

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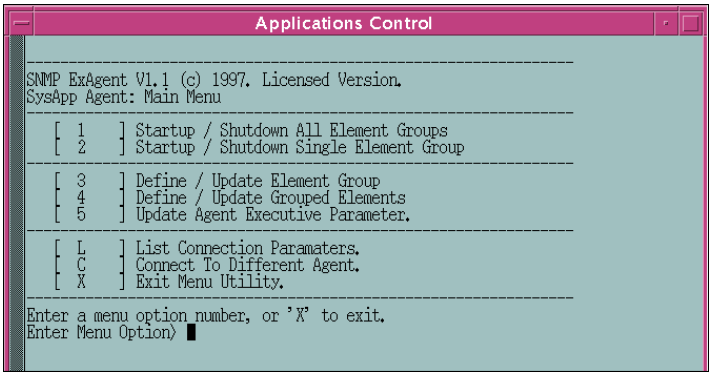
Stopping the Application Server

Complete these steps to stop the Application Server after you stop the Spectrum NMS.

❑ 1. At the Application Server, open an xterm window.

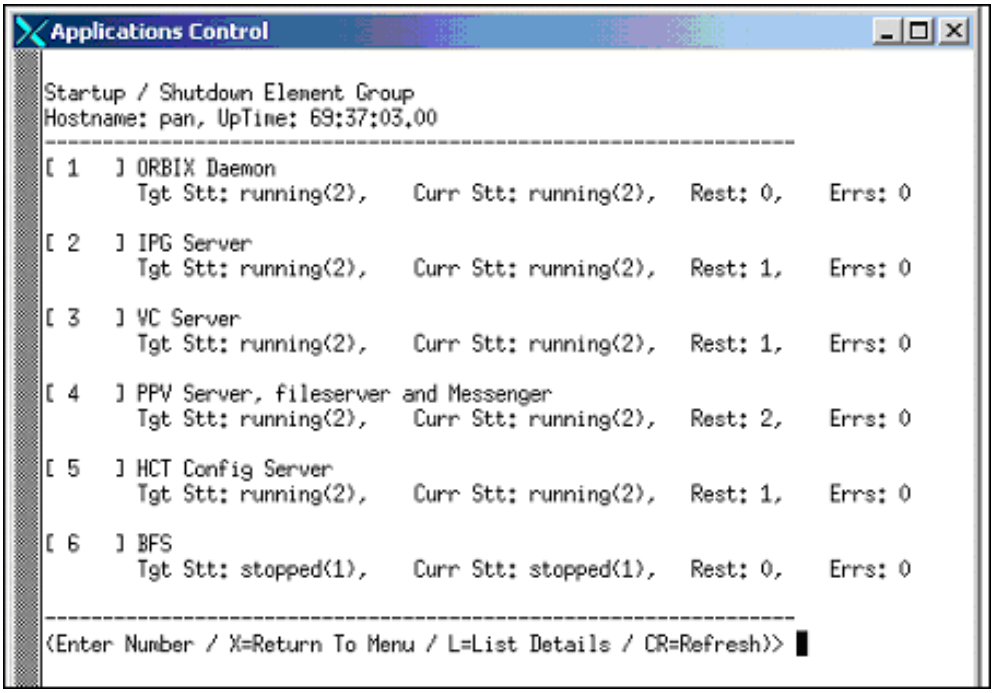
❑ 2. At the prompt, type **appControl** and press **Enter**.

Result: The Applications Control window opens.



❑ 3. Type **2** to select **Startup/Shutdown Single Element Group** and press **Enter**.

Result: A list appears of all the Application Server processes and shows their current working states (*running* or *stopped*).



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- ❑ 4. Click the middle mouse button and select **App Serv Stop**.

  Result: The Application Server begins shutting down all of its processes. This takes approximately 2 minutes to complete.

- ❑ 5. On the Applications Control window, press **Enter** to update the working states of the Application Server processes. Continue to press **Enter** every few seconds until all processes show **Curr Stt: stopped(1)**.

  Note: You will not see a status message while the processes are shutting down.

- ❑ 6. When all processes show **Curr Stt: stopped(1)**, follow the on-screen instructions to close the Applications Control window.

- ❑ 7. Close any windows that may be open on the Application Server, except the xterm window.

- ❑ 8. Close all remote connections to the Application Server, then go to **Stopping the DNCS**, next in this section.

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Stopping the DNCS

After you stop the Application Server, complete these steps to stop the DNCS.

- ❑ 1. On the DNCS, click the middle mouse button and select **DNCS Stop**.

  Result: The DNCS begins shutting down all of its processes. This takes approximately 2 minutes to complete.

- ❑ 2. Open an xterm window on the DNCS.

- ❑ 3. At the prompt, type **dncsControl** and press **Enter**.

  Result: The Dncs Control window opens.

- ❑ 4. Type **2** to select **Startup/Shutdown Single Element Group** and press **Enter**.

  Result: A list appears of all the DNCS processes and shows their current working states (*running* or *stopped*).

- ❑ 5. On the DNCS control window, press **Enter** to update the working states of the DNCS processes. Continue to press **Enter** every few seconds until all processes show **Curr Stt: stopped(1)**.

  Note: You will not see a status message while the processes are shutting down.

- ❑ 6. When all processes show **Curr Stt: stopped(1)**, follow the on-screen instructions to close the Dncs Control window.

- ❑ 7. Close any windows that may be open on the DNCS, except the xterm window.

- ❑ 8. Close all remote connections to the DNCS.

- ❑ 9. Go to **Stop the cron Jobs**, next in this chapter.

Stop the cron Jobs

Introduction

After you stop the system components, you must stop any cron jobs that are running on the DNCS and the Application Server as described in this section.

Note: A cron job is a program that runs automatically without specific user intervention.

Stopping the cron Jobs on the DNCS

Complete these steps to stop cron jobs on the DNCS.

❑ 1. Are you logged into the DNCS as root user?

- If **yes**, go to step 4.
- If **no**, go to step 2.

❑ 2. At the prompt on the DNCS xterm window, type **su -** and press **Enter**.

Result: A password prompt appears.

❑ 3. Type the root user password and press **Enter**.

Result: A prompt appears.

❑ 4. Type **ps -ef | grep cron** and press **Enter**.

Result: The system lists the processes that are running and includes the word cron.

❑ 5. Does the resulting list in step 4 include **/usr/sbin/cron**?

- If **yes**, go to step 6.
- If **no**, the cron jobs are already stopped on the DNCS. Skip the remaining steps in this procedure and go to **Stopping the cron Jobs on the Application Server**, next in this section.

❑ 6. Type **/etc/rc2.d/S75cron stop** and press **Enter**.

Result: The system stops all cron jobs on the DNCS.

❑ 7. Type **ps -ef | grep cron** again and press **Enter** to confirm that all of the cron jobs have stopped.

Result: The system should list only the grep process.

❑ 8. Has the cron job process stopped and only the grep process is listed?

- If **yes**, go to **Stopping the cron Jobs on the Application Server**, next in this section.
- If **no**, call Cisco Services.

Continued on next page

Stopping the cron Jobs on the Application Server

Complete these steps to stop cron jobs on the Application Server.

Important: This procedure pertains to sites that support SARA only.

- ❑ 1. Are you logged into the Application Server as root user?
  - If **yes**, go to step 4.
  - If **no**, go to step 2.
- ❑ 2. At the prompt on the Application Server xterm window, type **su -** and press **Enter**.

  Result: A password prompt appears.
- ❑ 3. Type the root user password and press **Enter**.

  Result: A prompt appears.
- ❑ 4. Type **ps -ef | grep cron** and press **Enter**.

  Result: The system lists the processes that are running and includes the word cron.
- ❑ 5. Does the resulting list in step 4 include **/usr/sbin/cron**?
  - If **yes**, go to step 6.
  - If **no**, the cron jobs are already stopped on the DNCS. Skip the remaining steps in this procedure and go to **Ensure No Active Sessions on the DNCS**, next in this chapter.
- ❑ 6. Type **/etc/rc2.d/S75cron stop** and press **Enter**.

  Result: The system stops all cron jobs on the DNCS.
- ❑ 7. Type **ps -ef | grep cron** again and press **Enter** to confirm that all of the cron jobs have stopped.

  Result: The system should list only the grep process.
- ❑ 8. Has the cron job process stopped and only the grep process is listed?
  - If **yes**, go to **Ensure No Active Sessions on the DNCS**, next in this chapter.
  - If **no**, call Cisco Services.

Ensure No Active Sessions on the DNCS

Ensuring No Active Sessions on the DNCS

Complete these steps to ensure that there are no active sessions on the DNCS.

Note: You should still be logged into the DNCS as root user.

- ❑ 1. Are you logged into the DNCS as root user?
  - If **yes**, go to step 4.
  - If **no**, go to step 2.
- ❑ 2. At the prompt on the DNCS xterm window, type **su -** and press **Enter**.

  Result: A password prompt appears.
- ❑ 3. Type the root user password and press **Enter**.

  Result: A prompt appears.
- ❑ 4. Type **. /dvs/dncs/bin/dncsSetup** and press **Enter**.

  Important: Be sure to type a period (**.**) followed by a space at the beginning of this command.

  Result: The system establishes the root user environment followed by a prompt.
- ❑ 5. Type **showActiveSessions** and press **Enter**.
- ❑ 6. Your next step depends on which message appeared as a result of typing the command in step 5.
  - If the message indicates that the **INFORMIXSERVER is idle**, go to **Install the Application Server Software**, next in this chapter.
  - If the message indicates that there are **active sessions**, go to step 7.
- ❑ 7. Type **killActiveSessions** and press **Enter**.

  Result: The system removes all active sessions from the database.
- ❑ 8. Type **/dvs/dncs/bin/stopSOAPServers** and press **Enter**.

  Result: The system stops any SOAP servers that are still running.
- ❑ 9. Type **showActiveSessions** again and press **Enter** to confirm that there are no active sessions.
- ❑ 10. Did a message appear indicating that there are active sessions?
  - If **yes**, contact Cisco Services.
  - If **no**, go to **Install the Application Server Software**, next in this chapter.

Install the Application Server Software

Introduction

Follow the instructions in this section to install the Application Server software onto the Application Server.

Before You Begin

Before you install the Application Server software, verify that you have the CD for the previous version of Application Server code in case you need to roll back.

Installing the Application Server Software

Complete these steps to install the Application Server software.

Note: It should take about 15 minutes to install the Application Server software.

- ❑ 1. Are you logged into the Application Server as root user?
  - If **yes**, go to step 4.
  - If **no**, go to step 2.
- ❑ 2. At the prompt on the Application Server xterm window, type **su -** and press **Enter**.

  Result: The system prompts you to enter the password for the root user.
- ❑ 3. Type the password for the root user and press **Enter**.

  Result: The system logs you in as the root user and displays a root user prompt.
- ❑ 4. Place the CD labeled **Application Server 3.1.2** into the CD drive of the Application Server.

  Result: The system automatically mounts the CD to /cdrom/sa_dvs within 30 seconds.
- ❑ 5. Type **df -n** and then press **Enter**.

  Result: A list of the mounted file systems appears.

  Note: The presence of **/cdrom** in the output confirms that the system correctly mounted the CD.
- ❑ 6. Type **cd /cdrom/cdrom0** and then press **Enter**.

  Result: The /cdrom/cdrom0 directory becomes the working directory.

Continued on next page

❑ 7. Type **./install_pkg** and then press **Enter**.

Important: Make certain that there are no spaces between the dot (.) and the slash (/).

Result: A confirmation message asks you to confirm that you want to proceed with the installation.

❑ 8. Type **y** and press **Enter** to start the installation.

Result: When the installation is complete, the system displays a message stating that the installation was successful and a prompt for the root user appears.

Result: The installation should take about a minute.

❑ 9. Was the installation successful?

- If **yes**, type **exit** and press **Enter** to log out as root user. Then go to step 10.
- If **no**, contact Cisco Services.

❑ 10. Type **exit** and press **Enter** to close the xterm window.

Result: The xterm window closes so that the File Manager window is now visible.

❑ 11. From the File Manager window, click **File** and select **Eject**.

Result: The CD ejects and the File Manager window closes.

❑ 12. Remove the CD from the CD drive and store it in a secure location. Go to **Verify Application Server Versions**, next in this chapter.

Verify Application Server Versions

Introduction

After you install the required software for Application Server 3.1.2, the next step is to ensure that the correct software version was installed on the Application Server as described in this section.

Use *pkginfo*, a Solaris software management tool, to verify that the correct software versions were installed on the Application Server during the upgrade.

Notes:

- Use the **Version** field and the **Status** field of the output produced by *pkginfo* to obtain the information you need.
- If the **Status** field indicates that the software is not completely installed, contact Cisco Services for assistance.

Verifying Application Server Versions

After you verify the DNCS software versions, complete these steps to verify the software versions that were installed on the Application Server during the upgrade.

❑ 1. On the Application Server xterm window, type the following command and press **Enter**:

pkginfo -l [Package Name]

Notes:

- The –l is a lowercase L.
- For **[Package Name]**, use the **Package Name** column in the table in step 2 to substitute the software component. For example, to check the Application Server version, you would type **pkginfo -l SAIapsrv** and press **Enter**.

Result: The system displays the installed version of the component.

❑ 2. Record the version number in the Actual Results column of the following table for each component you check.

Component	Package Name	Expected Results	Actual Results
Application Server	SAIapsrv	3.1.2	
Application Server Toolkit	SAItools	3.0.1.9 or later	

Continued on next page

- ❑ 3. Repeat steps 1 and 2 for each package name in the preceding table.
- ❑ 4. Do the first three digits of the **Actual Results** match the first three digits of the **Expected Results** for each component in the preceding table?
  - If **yes**, go to **Reboot the DNCS and the Application Server**, next in this chapter.
  - If **no**, contact Cisco Services and inform them of the discrepancy.

  Important: The build number (the fourth digit of the version number) may differ.

Reboot the DNCS and the Application Server

Introduction

After you verify installed software component versions, you must reboot the DNCS and Application Server.

Rebooting the DNCS and Application Server

Complete these steps to reboot the DNCS and Application Server.

- ❑ 1. At the root prompt on the Application Server, type **/usr/sbin/shutdown -y -g0 -i0** and press **Enter**.

  Result: The Application Server shuts down and an ok prompt appears.

- ❑ 2. At the root prompt on the DNCS, type **/usr/sbin/shutdown -y -g0 -i6** and press **Enter**.

  Result: The DNCS reboots, and the CDE Login window appears.

- ❑ 3. Log on to the DNCS as dncs user.

- ❑ 4. At the ok prompt on the Application Server, type **boot** and press **Enter**.

  Result: The Application Server reboots and the CDE Login window appears.

- ❑ 5. Log on to the Application Server as dncs user.

- ❑ 6. Go to **Restart System Components**, next in this chapter.

Restart System Components

Introduction

After you reboot the DNCS and the Application Server, you must complete the procedures in this section to restart the following system components in the order listed:

1. Spectrum NMS
2. DNCS processes and cron jobs
3. Application Server processes and cron jobs
4. Billing system and other third-party applications

Restarting Spectrum

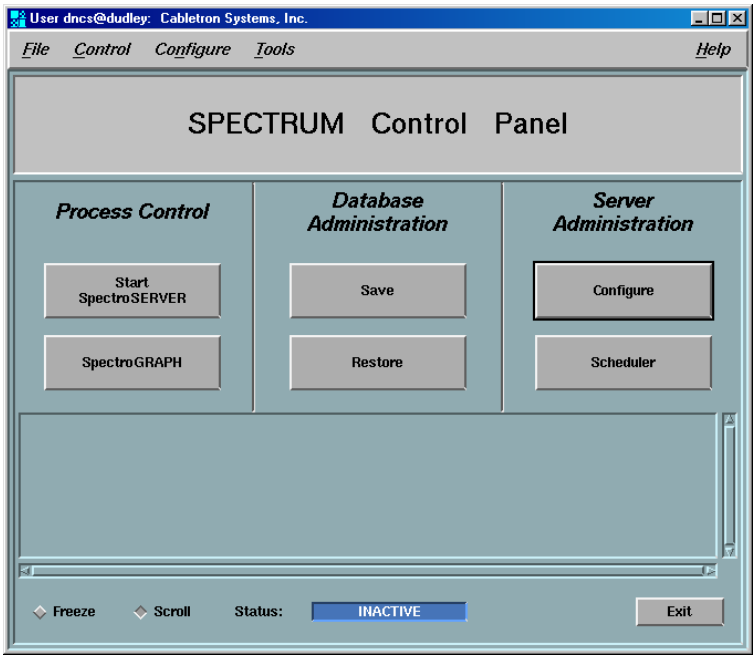
Complete these steps to restart the Spectrum NMS.

❑ 1. On the DNCS Administrative Console Status window, click **Control** in the NMS area.

Result: The Select Host Machine window opens with the Spectrum Control Panel in the background.

❑ 2. Click **OK**.

Result: The Select Host Machine window closes and the Spectrum Control Panel moves to the forefront.



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- ❑ 3. Click **Start SpectroSERVER**.

  Result: The system begins restarting the Spectrum NMS. When finished, the Status field at the bottom of the Spectrum Control Panel changes to *Running*.

- ❑ 4. Click **Exit**.

  Result: A confirmation window opens.

- ❑ 5. Click **OK**.

  Result: The confirmation and Spectrum Control Panel windows close.

- ❑ 6. Go to **Restarting the DNCS**, next in this section.

Restarting the DNCS

Complete these steps to restart the DNCS.

- ❑ 1. Log in to the DNCS as dncs user.
- ❑ 2. On the DNCS, click the middle mouse button and select **Administrative Console**.

  Result: The DNCS Administrative Console window opens, along with the DNCS Administrative Console Status window.

- ❑ 3. On the DNCS Administrative Console Status window, click the **Control** (or **Monitor**) button in the DNCS area.

  Result: The DNCS Control (or Monitor) window opens with a list of all the DNCS processes and their working states. A *red* state indicates that a process is not running. At this point, all processes should show a *red* state.

- ❑ 4. Click the middle mouse button and select **DNCS Start**.

  Result: On the DNCS Control window, all of the processes begin changing to a *green* state, which indicates that they are running.

  Note: It may take several minutes before all processes show a *green* state.

- ❑ 5. Open an xterm window on the DNCS.
- ❑ 6. At the prompt, type **dncsControl** and press **Enter**.

  Result: The Dncs Control window appears.

Continued on next page

- ❑ 7. Type **2** to select **Startup/Shutdown Single Element Group** and press **Enter**.

  Result: A list appears of all the DNCS processes and shows their current working states (*running* or *stopped*).

- ❑ 8. Press **Enter** to update the working states of the DNCS processes. Continue to press **Enter** every few seconds until all processes show **Curr Stt: running(2)**.

  Note: You will not see a status message while the processes are starting up.

- ❑ 9. When all processes, except [17] GUI Servers, show **Curr Stt: running(2)**, follow the on-screen instructions to close the Dncs Control window.

  Note: GUI Servers will always show Curr Stt: stopped (1).

- ❑ 10. Close any windows that may be open on the DNCS, except the xterm and the DNCS Monitor windows.

- ❑ 11. Go to **Restarting the cron Jobs on the DNCS**, next in this section

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Restarting the cron Jobs on the DNCS

Complete these steps to restart the cron jobs on the DNCS.

- ❑ 1. Are you logged into the DNCS as root user?
  - If **yes**, go to step 4.
  - If **no**, go to step 2.
- ❑ 2. At the prompt on the DNCS xterm window, type **su -** and press **Enter**.

  Result: A password prompt appears.
- ❑ 3. Type the root user password and press **Enter**.

  Result: A prompt appears.
- ❑ 4. At the prompt, type **/etc/rc2.d/S75cron start** and press **Enter**.

  Note: The cron jobs may have automatically started. A message will appear indicating that "cron is already running."

  Result: The system restarts all cron jobs.
- ❑ 5. Type **ps -ef | grep cron** and press **Enter** to confirm that the cron jobs have restarted.

  Result: The system lists **/usr/sbin/cron** and **grep cron**.
- ❑ 6. Have the cron jobs restarted?
  - If **yes**, type **exit** to exit from root user.
  - If **no**, contact Cisco Services.
- ❑ 7. Go to **Restarting the Application Server**, next in this section.

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Restarting the Application Server

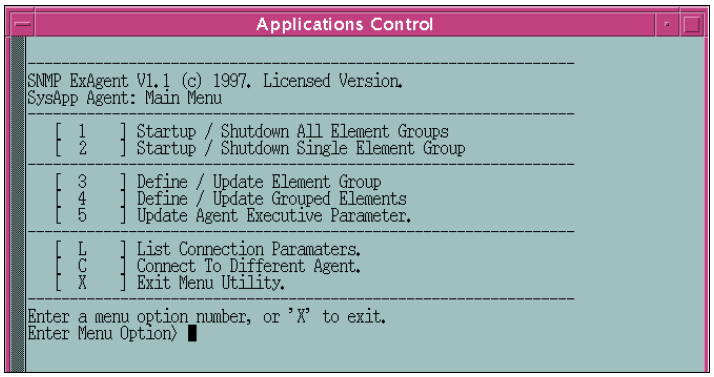
The Application Server processes may have restarted on their own. Follow these instructions to check if the Application Server processes have started and then to restart them, if necessary.

If your site supports SARA, complete these steps to restart the Application Server after you restart the cron jobs on the DNCS.

Note: The Application Server may have restarted automatically. This procedure will help you determine whether or not it has before you try to restart it.

❑ 1. On the Application Server xterm window, type **appControl** and press **Enter**.

Result: The Applications Control window opens.



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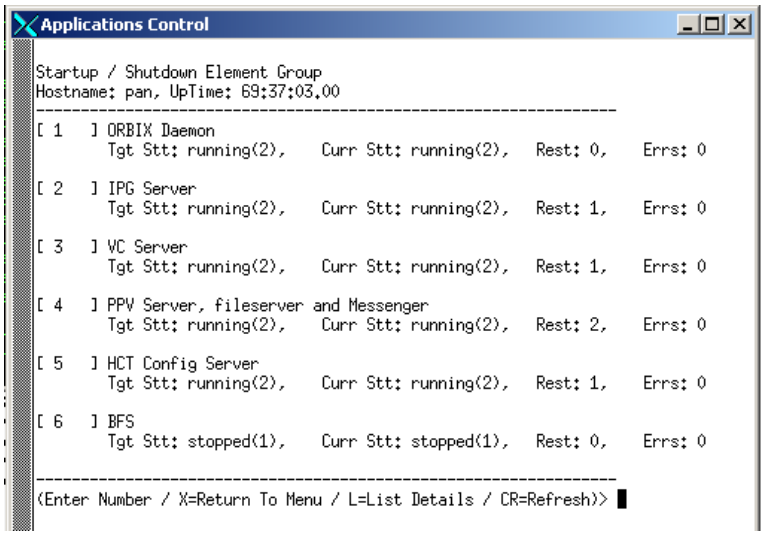
❑ 2. Type **2** to select **Startup/Shutdown Single Element Group** and press **Enter**.

Result: A list appears of all the Application Server processes and shows their current working states (*running* or *stopped*).



❑ 3. Does the word *running* appear next to the current state field (**Curr Stt**) of each process?

- If **yes**, the Application Server restarted automatically. Skip the remainder of this procedure and go to **Restarting Billing and Other Third-Party Applications**, next in this section.
- If **no**, go to step 4.

❑ 4. Click the middle mouse button and select **App Serv Start**.

Result: The Application Server begins restarting all of its processes.

❑ 5. On the Applications Control window, press **Enter** to update the working states of the Application Server processes. Continue to press **Enter** every few seconds until all processes show **Curr Stt: running(1)**.

Note: You will not see a status message while the processes are restarting.

❑ 6. When the Application Control window indicates that the current state of each process is *running*, follow the on-screen instructions to close the Applications Control window.

Note: On some systems, the BFS process may remain at *stopped*. This is normal.

❑ 7. Go to **Restarting Billing and Other Third-Party Applications**, next in this section.

Continued on next page

Restarting Billing and Other Third-Party Applications

Contact your billing vendor to restart the billing interface. If you stopped any third-party interfaces prior to installing the Application Server 3.1.2 software, restart those interfaces as well. Then, go to **System Validation Tests**, next in this chapter.

System Validation Tests

Introduction

After you restart the cron jobs and the billing and other third-party applications, you must perform system validation tests.

Note: This procedure applies to systems running SARA only.

Prerequisites

The test DHCT(s) you use for this procedure must meet the following conditions:

- Must be authorized for all third-party applications
- Must not be authorized to view a PPV event without specifically buying the PPV event
- Must have a working return path and be capable of booting into two-way mode

Verifying a Successful Installation

Complete these steps to verify that Application Server 3.1.2 installed successfully.

Important: If this procedure fails, do *not* continue with the remaining procedures in this publication. Instead, contact Cisco Services.

❑ 1. Perform a slow-and-fast boot on a test DHCT as follows:

a) Boot a DHCT.

Note: Do *not* press the POWER button.

b) Access the Power On Self Test and Boot Status Diagnostic Screen on the DHCT and verify that all parameters, except UNcfg, display **Ready**.

Note: UNcfg displays **Broadcast**.

c) Wait 5 minutes.

d) Press the POWER button on the DHCT.

Result: The DHCT powers on.

e) Access the Power On Self Test and Boot Status Diagnostic Screen on the DHCT.

f) Do all of the parameters, including UNcfg, display **Ready**?

- If **yes**, go to step 2.
- If **no**, contact Cisco Services.

❑ 2. Ping the DHCT.

Continued on next page

- ❑ 3. Did the DHCT receive the ping?
  - If **yes**, go to step 4.
  - If **no**, contact Cisco Services.
- ❑ 4. Stage at least one new DHCT to the system operator's specifications.
- ❑ 5. Did the newly staged DHCT successfully load the current client release software?
  - If **yes**, go to step 6.
  - If **no**, contact Cisco Services.
- ❑ 6. Did the DHCT receive 33 or 34 EMMs and successfully receive its Entitlement Agent?
  - If **yes**, go to step 7.
  - If **no**, contact Cisco Services.
- ❑ 7. Does the IPG display 7 days of valid and accurate data?
  - If **yes**, go to step 8.
  - If **no**, contact Cisco Services.
- ❑ 8. Do the PPV barkers appear on the PPV channels correctly?
  - If **yes**, go to step 9.
  - If **no**, contact Cisco Services.
- ❑ 9. Do third-party applications load properly?
  - If **yes**, go to step 10.
  - If **no**, contact Cisco Services.
- ❑ 10. Did every test in this section pass?
  - If **yes**, go to **Recheck the EAS Configuration**, next in this chapter.
  - If **no**, contact Cisco Services.

Recheck the EAS Configuration

Checking the EAS Configuration

After you have performed a final system validation check to verify that Application Server 3.1.2 installed successfully, recheck your EAS equipment to make sure it is still properly configured in the DNCS. Refer to the procedures in Chapters 1, 3, and 8 of the *Configuring and Troubleshooting the Digital Emergency Alert System.*

Chapter 3
Customer Information

Overview

If You Have Questions

If you have technical questions, call Cisco Services for assistance. Follow the menu options to speak with a service engineer.

Access your company's extranet site to view or order additional technical publications. For accessing instructions, contact the representative who handles your account. Check your extranet site often as the information is updated frequently.

Appendix A
Application Server 3.1.2 Rollback Procedure

Overview

Introduction

If you notice that your system is unstable after having installed Application Server 3.1.2, contact Cisco Services. Cisco Services engineers may determine that you need to remove the Application Server software and reinstall the previous version.

Follow the procedures in this appendix to restore your system to its condition before you installed Application Server 3.1.2. This procedure is known as a *rollback*.

Important: Do not start this rollback procedure without first contacting Cisco Services.

Database Changes Are Not Rolled Back

This rollback procedure rolls back only the executable files. Any database changes that resulted from running the formatDbSpace.sh shell script are not rolled back. These database changes are permanent and will have no negative impact upon systems that are rolled back.

In This Appendix

This appendix contains the following topic.

Roll Back Application Server 3.1.2

Introduction

In the unlikely event that you experience a problem installing this Application Server, the rollback process involves reinstalling the previous versions of the SAIapsrv and SAItools packages for the Application Server.

Note: You identified these versions and set aside these CD(s) in the **If You Need to Roll Back** section, which is located in the **System Release Compatibility and Prerequisites** section of Chapter 1.

Rolling Back Application Server 3.1.2

Complete these steps to roll your Application Server software back to the previous release before you installed Application Server 3.1.2.

Important: Do not start this rollback procedure without first contacting Cisco Services.

- ❑ 1. Locate the previous version installation CD(s) that you identified in **If You Need to Roll Back** in Chapter 1, **System Release Compatibility and Prerequisites**.
- ❑ 2. Complete the procedures in the following sections of Chapter 2 of this publication:
  a) **Stop System Components**
  b) **Stop the cron Jobs**
  c) **Ensure No Active Sessions on the DNCS**
- ❑ 3. Open an xterm window on the Application Server.
- ❑ 4. Type su - and press **Enter** to log in to the xterm window as root user.

  Result: A password prompt appears.
- ❑ 5. Type the **root** user password.

  Result: A prompt appears.
- ❑ 6. Type **pkgrm SAIapsrv SAItools** and press **Enter**.

  Result: The system prompts you to confirm that you want to remove the packages.
- ❑ 7. Type **Y** for yes then place the CD labeled similar to Application Server into the CD drive of the Application Server.

  Important: This is your previous version of SAIapsrv software.

  Result: The system automatically mounts the CD to /cdrom within 30 seconds.

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❑ 8. Type **df -n** and then press **Enter**.

Results:

- A list of the mounted file systems appears.
- The presence of /cdrom in the output confirms that the system correctly mounted the CD.

❑ 9. Type **cd /cdrom/cdrom0** and then press **Enter**.

Result: The /cdrom/cdrom0 directory becomes the working directory.

❑ 10. Type **./install_pkg** and then press **Enter**.

Important: Make certain that there are no spaces between the dot (.) and the slash (/).

Result: A message asks you to confirm that you want to proceed with the installation.

❑ 11. Type **y** and press **Enter** to start the installation.

Result: When the installation is complete, the system displays a message stating that the installation was successful and a prompt for the root user appears.

Note: The installation should take about a minute.

❑ 12. Was the installation successful?

- If **yes**, type **exit** and press **Enter** to log out as root user. Then go to step 13.
- If **no**, contact Cisco Services.

❑ 13. Follow these instructions to eject the CD:

a) Type **cd /**and then press **Enter**.

b) Type **eject cdrom** and then press **Enter**.

Result: The CD ejects.

❑ 14. Remove the CD from the CD drive and store it in a secure location.

❑ 15. At the root user prompt on the Application Server, type **/usr/sbin/shutdown -y -g0 -i0** and then press **Enter**.

Result: The Application Server shuts down and an ok prompt appears.

Continued on next page

- ❑ 16. At the root user prompt on the DNCS, type **/usr/sbin/shutdown -y -g0 -i6** and then press **Enter**.

  Result: The DNCS reboots and a login prompt appears.
- ❑ 17. At the login prompt on the DNCS, log on as **dncs**.
- ❑ 18. On the Application Server, type **boot** at the ok prompt and press **Enter**.
- ❑ 19. At the login prompt on the Application Server, log on as **dncs**.
- ❑ 20. Complete the procedures in the **Restart System Components** section of Chapter 2 of this publication
- ❑ 21. Follow the steps in the **Verify DBDS Stability** section of Chapter 2 of this publication to ensure that the system is stable after the rollback.

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